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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/664,930	09/22/2003	Naoki Nakamura	021385B	5142
38834	7590	12/20/2005	EXAMINER	
WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP 1250 CONNECTICUT AVENUE, NW SUITE 700 WASHINGTON, DC 20036			NGUYEN, JIMMY	
			ART UNIT	PAPER NUMBER
			2829	

DATE MAILED: 12/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/664,930

Applicant(s)

NAKAMURA, NAOKI

Examiner

Jimmy Nguyen

Art Unit

2829

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 September 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 - 3, 8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 - 3, 8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 10/274125.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### Response to Argument

The examiner acknowledges the amendment filed 9/28/05 with the following effect;

- a. Applicant's arguments with respect to claims 1 - 3 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 2, 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Obata et al (US 6,429,673) in view of Kong et al (US 3,917,984)

**As to claims 1, 8**, Obata et al discloses (fig 1) a test apparatus used for testing a multilayer wiring board being fabricated by stacking wiring layers successively, said test apparatus comprising:

A probe (35, 45) that detects defects in the multilayer wiring board (25) under fabrication.

However, Obata et al does not disclose and an element supplementing unit that mounts additional elements on the multilayer wiring layer under fabrication when no defect is detected by the probe.

On the other hand, Kong et al teach (figs 3, 6) an element supplementing unit (38) that mounts additional elements (35) on the multilayer wiring layer ((10) under fabrication when no defect is detected by the probe.

It would have been obvious to one having an ordinary skill in the art at the time of the invention was made to recognize that after testing the printed wiring board with no defect an additional electronic components (capacitors, resistors, inductors..ect) will be added on the wiring board to perform the design function of the board.

**As to claim 2**, Kong et al teach (figs 3, 6) additional elements (35) to be mounted are included in the element supplementing unit (38).

4. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Obata et al (US 6,429,673) in view of Kong et al (US 3,917,984) and further in view of Quattrini et al (US 4,891,789).

**As to claim 3**, the combination of Obata et al and Kong et al disclosed everything except for a first section arranged to face a first side of the multilayer wiring board under fabrication to mount the additional elements on the first side; and a second section arranged to face a second side of the multilayer wiring board under fabrication to mount the additional elements on the second side.

On the other hand, Quanttrini et al teach a first section arranged to face a first side ( top side) of the multilayer wiring board (10) under fabrication to mount the additional elements (12) on the first side; and a second section arranged to face a second side of the multilayer wiring board (10) under fabrication to mount the additional elements (12) on the second side (bottom side).

It would have been obvious to one having an ordinary skill in the art at the time of the invention was made to modify the teaching of Obata et al and Kong et al with the structure of Quattrini et al for the purpose of reducing the number of holes and length of connective wiring ( see the abstract).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jimmy Nguyen whose telephone number is 571-272-1965. The examiner can normally be reached on M-F from 9 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ramtez Nestor can be reached on 571- 272-2034. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

Application/Control Number: 10/664,930

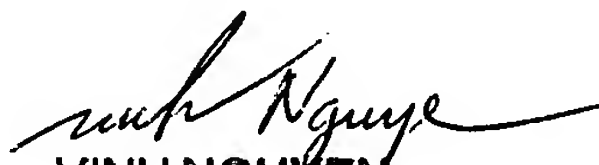
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JN.

12/1, /2005

  
VINH NGUYEN  
PRIMARY EXAMINER  
A.U. - 2829  
12/12/05